

CLAIMS

1. A sintered metal rotor of a rotary piston pump, in particular a rotary piston pump for generating a vacuum of a vacuum brake booster of a motor vehicle, where the brake booster can be connected to a vacuum pump intake connection, with a pot-shaped base body (1) and a bearing journal element which protrudes centrally from the bottom of this base body (1) from a cylindrical foot area coming directly out of the bottom and a connecting claw section (2) to be connected to it for a coupling element to be attached, characterized by the features
 - the connecting claw section (2) is designed in the form of two protruding individual webs (3),
 - the individual webs (3) are diametrically opposed in the outside circumferential area of the cylindrical base section in an area limited to max. 100° at the circumference and radially to max. 25% of the diameter of the cylindrical base section,
 - the two connecting claw individual webs (3) are press-sintered by sintering compression rams that are designed based on the cross-sectional area and are separately operable by the other sintering compression rams that are necessary to create the rotor.
2. The rotor according to Claim 1, characterized in that the two individual webs (3) have the same size and shape.
3. The rotor according to Claim 1 or 2, characterized in that the circumferential area assumed by an individual web (3) is limited to max. 90°.

4. The rotor according to one of the preceding claims, characterized in that the area assumed radially by the individual webs (3) is limited to max. 20% of the cylindrical base section.
5. The rotor according to one of the preceding claims, characterized in that the individual webs (3) of the connecting claw section are case-hardened in edge profiles.
6. The rotor according to one of the preceding claims, characterized in that the case-hardening in edge profiles is inductively generated.
7. The rotor according to one of the preceding claims, characterized in that the edge-hardened area is shock cooled.
8. The rotor made of as the sintered metal according to one of the preceding claims, characterized in that the individual webs (3), including at least one transitional area directly adjacent in the direction of the rotor base body, contain copper that has been infiltrated subsequently into the pressed sintered structure.
9. The rotor according to Claim 8, characterized in that a single web (3) enriched with copper has a specific gravity of at least 7.5 g/cm^3 .
10. The rotor according to Claim 9, characterized in that the specific gravity is greater than 7.8 g/cm^3 .
11. The rotor according to Claim 10, characterized in that the specific gravity is at least 7.9 to 8.0 g/cm^3 .

12. A sintered coupling element of a rotor according to one of the preceding claims, characterized in that the coupling element has a cross section that has been adapted to the development of the connecting claw section (2) with a rod-shaped torque abrasion area in the form of an elongated web (10).
13. A method for producing a rotor according to one of the preceding claims, characterized in that separate rams assigned to the individual webs (3) according to cross section are provided with a separate pressure acting on them in a sintering compression mold for producing the sintered rotor.
14. The method for manufacturing a rotor according to one of Claims 8 through 11 in particular with a method according to Claim 13, characterized in that copper that is present in infiltrated form at least in the individual webs (3) penetrates out of a superficially copper layer applied at least to the individual webs (3) and into the sintered structure during the sintering heat treatment.